Critical Path Method

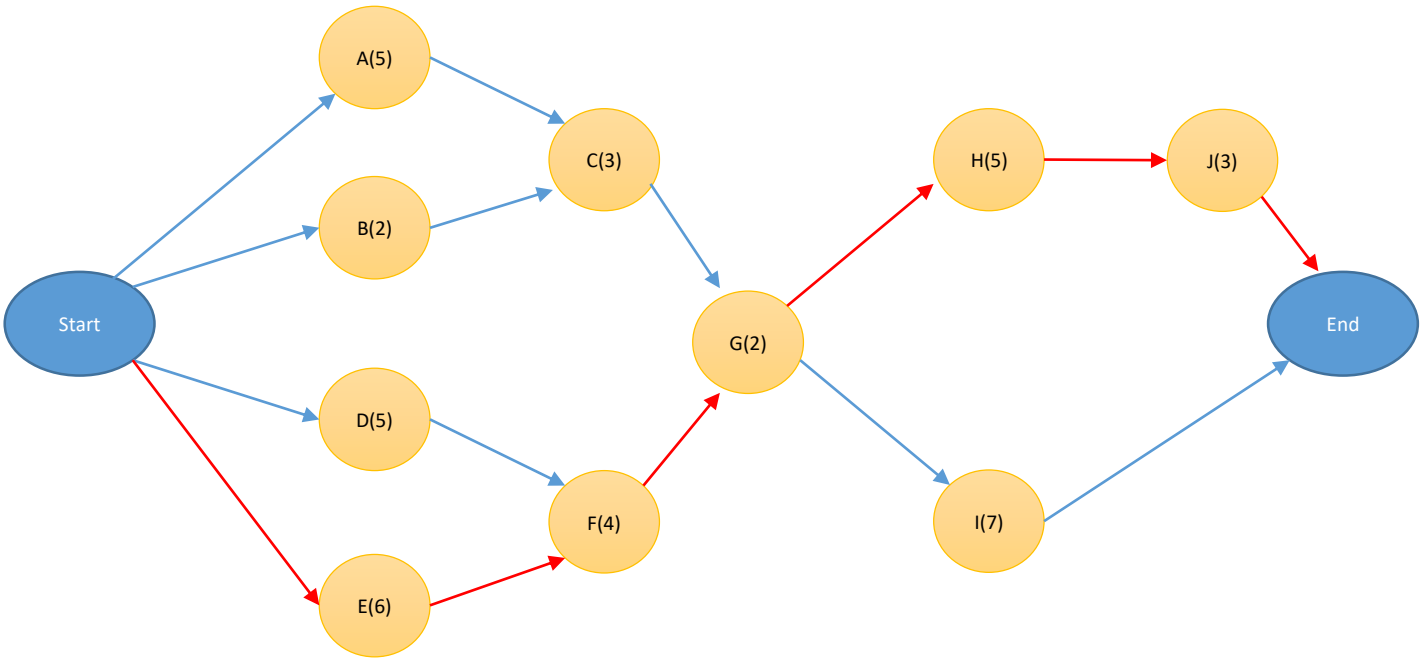
Exercise 1:

For the following table of information,

1. Draw the network diagram
2. List the network paths
3. Determine the critical path(s)
4. Determine the float for each activity

Activity	Duration	Dependency
Start	0 days	-
A	5 days	Start
B	2 days	Start
C	3 days	A, B
D	5 days	Start
E	6 days	Start
F	4 days	D, E
G	2 days	C, F
H	5 days	G
I	7 days	G
J	3 days	H
Finish	0 days	I, J

Solution



2. Network paths:

1. **A -> C -> G -> H -> J**
2. **A -> C -> G -> I**
3. **B -> C -> G -> H -> J**
4. **B -> C -> G -> I**
5. **D -> F -> G -> H -> J**
6. **D -> F -> G -> I**
7. **E -> F -> G -> H -> J**
8. **E -> F -> G -> I**

3. Critical path: **E -> F -> G -> H -> J (shown in red)**

Exercise#2:

For the following table of information,

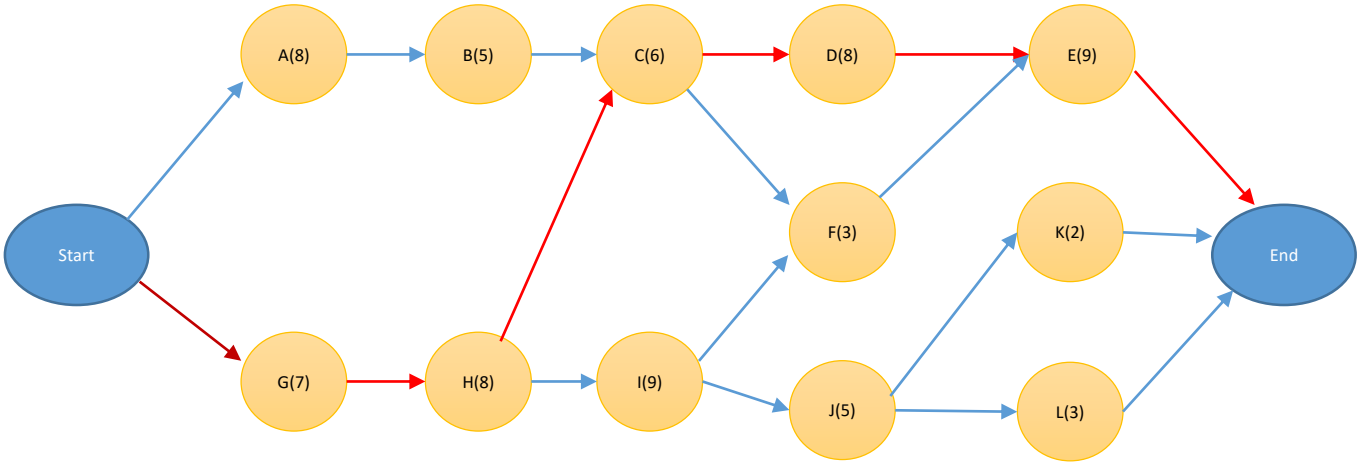
1. Draw the network diagram

2. List the network paths

3. Determine the critical path(s)

Activity	Duration (Days)	Dependency
Start	0	-
A	8	Start
B	5	A
C	6	B, H
D	8	C
E	9	D, F
F	3	C, I
G	7	Start
H	8	G
I	9	H
J	5	I
K	2	J
L	3	J
Finish	0	

Solution



2. Network paths:

1. **A -> B -> C -> D -> E**
2. **A -> B -> C -> F -> E**
3. **G -> H -> I -> J -> K**
4. **G -> H -> I -> J -> L**
5. **G -> H -> C -> D -> E**
6. **G -> H -> C -> F -> E**
7. **G -> H -> I -> F -> E**

3. Critical path: **G -> H -> C -> D -> E (shown in red)**